

# City of Redmond RCTV21 Webcast 1-2-3

## Encoder PC (\$2,200)

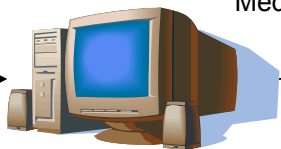
**Dell GX270S** (P4 2.8 GHz, 512 MB RAM)

40 GB HD GB NIC running at 100 Mb)

**Osprey 230 Video Capture Card**

Windows XP SP1

Windows Media Encoder 9 (free download)



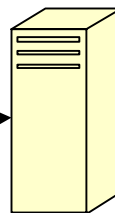
**1**

Setup encoder PC with Windows XP SP1 and video capture card. Currently this capture card receives a live audio/video feed directly from RCTV (Redmond's Community broadcast station). Using Windows Media Encoder 9 the input stream is encoded into a variable bit rate. In order to serve "viewers" with different bandwidth connections to the Internet the signal is encoded into 3 streams of differing resolutions. These are; 42Kbps, 109Kbps and 273Kbps. The signal is then "pushed" to a share (in our case called RCTVLive) on the Windows Media Server machine where it is available for broadcast over the Internet.

## Media Server (\$13,000)

**Compaq DL 380 G3** (Dual P4 3.06 GHz, 6x 72 GB HD RAID5, 3 GB RAM, Gigabit NIC)

Windows 2003 Server with windows Media Server 9 role enabled



Encoded signal  
"pushed" to  
Media Server

42/109/273  
Kbps

**2**

The Windows Media Server is configured to use the share (RCTVLive) as a distribution point and publishes it for broadcast. A link is displayed on a city web page linking to the url <mms://rctv.redmond.gov/RCTVLive>. When a visitor clicks on the link it causes the Windows Media Player on the person's PC to make a request for the video stream to the media server. The server and the PC negotiate an acceptable streaming bit rate (based on the speed of the network connection) and the user sees and hears the video on their PC.

### Notes:

City of Redmond is currently streaming the Live TV signal over the Internet. There is not much human intervention once this has been set up. We plan to start archiving material and have it available to the public. Our Connection to the Internet is 1.5Mb minimum with 6Mb burst. The load on the streaming server is minimal (<3% at peak time)

